United States Department of Agriculture | Forest Service | White Mountain National Forest
Saco Ranger District | 33 Kancamagus Highway
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File Code: 1950/2080
Date: February 15, 2005

Dear Interested Citizen,

The Saco Ranger District of the White Mountain National Forest is initiating an environmental analysis process for a proposal to control the spread of purple loosestrife (*Lythrum salicaria*), a state-listed prohibited invasive species, by release of non-native insects (*Galerucella calmariensis* and *G. pusilla*). We are asking the public for input for the proposed Loosestrife Biocontrol Project, the location of which is described on the enclosed map.

Purpose and Need

Purple Loosestrife (*Lythrum salicaria*) is a non-native invasive plant from Eurasia that was introduced into the United States in the early 1800s via ship ballast and for use as a medicinal herb and ornamental plant. The plant is known to occur in each of the 48 contiguous states with the possible exception of Florida; however, the greatest concentrations can be found in the New England, mid-Atlantic Coast, and Great Lake States. This perennial herb is found in wetland habitats, as well as along stream and river banks and lake shores, and in soils that hold water (e.g., ditches). Purple loosestrife is a prolific seeder (each plant can produce over a million seeds in a single season), and thus forms an extensive seedbank that is enhanced by high seed viability and high germination rates. Once germinated, seedlings exhibit rapid growth, taking only 8-10 weeks to flower. Loosestrife's massive seed bank potential and rapid growth rate, combined with the absence of natural insect and disease controls, makes loosestrife a formidable threat to native vegetation. Once it becomes established in an ecosystem, it can easily dominate and outcompete native species. Reductions in native plant biomass commonly exceed 50% in affected wetland communities, and it is not uncommon to find affected wetlands that have been 100% colonized by the plant. This reduction in plant diversity has wide-ranging effects, including a reduction in food and habitat for wildlife, as well as an alteration of hydrology and soil structure in the affected environment. In addition, the buildup of debris around the roots of loosestrife plants enables them to invade deeper water, form dense stands that shade out other emergents, and push out floating vegetation by closing open water spaces.

According to a 2002 invasive species inventory, there are only 10 known locations of purple loosestrife on the White Mountain National Forest, though many more exist on non-federal lands adjacent to the Forest. At the time of their documentation, all of the infestations contained less than 1,000 plants per site, which is a relatively small, manageable population size. If not contained and controlled quickly, these populations are likely to spread to the extent of suitable habitat in the surrounding area, as well as continue to serve as a seed source for future infestations. Executive Order 13112 issued in 1999, which mandates guidelines for the prevention and control of invasive species, directs Federal Agencies to "…detect and respond rapidly to and control populations of [invasive species] in a cost-effective and environmentally sound manner…," and "…provide for restoration of native species and habitat conditions in ecosystems that have been invaded…" (sec 2.2).

Proposed Action
The District Ranger of the Saco Ranger District of the White Mountain National Forest is proposing to use biocontrol agents (specifically, two stem and leaf-eating *Galerucella* beetles, *G. calmariensis* and *G. pusilla*) to control purple loosestrife along Rt. 16 between the Rocky Branch and Glen Ellis Parking Areas. Biocontrol is a viable alternative to more controversial, often ineffective and expensive methods for treating this invasive, such as mechanical cutting, pulling, and herbicide application. District personnel have mowed the loosestrife in the proposed project area with a brushsaw, and pulled portions of the population intermittently, for the last 5 years, yet the population continues to thrive and spread. The release of biocontrol agents would introduce a self-perpetuating management regime[1] as opposed to the more costly and labor-intensive conventional control methods that require continuous long-term maintenance to address extensive seed bank geminates and fragment resprouts.

We will purchase approximately 2,000-3,000 beetles from the NJ Department of Agriculture toward the middle of May[2], and store them either at the Jackson Elementary School or the Saco Ranger District until the proposed release date of late May or early June. We will release the beetles at two or three locations within the Project Area that have the highest loosestrife concentrations. While the intent of the project is to have the beetles overwinter and establish a stable population, we may need to supplement their numbers in subsequent years with additional releases.

This project also incorporates an educational component to its actions. We are including students in grades 3-6 from the Jackson Elementary School in the release effort. After a series of Forest Service led educational programs in the classroom, and potential beetle stewardship at the school, the students will participate in a field day whereby they will release the beetles at designated sites within the Project Area.

Decision to be Made
Based, in parts, on your input, on the recommendations of an interdisciplinary team of resource specialists, and on the requirements of the National Environmental Policy Act of 1969, District Ranger for the Saco District of the White Mountain National Forest, Terry Miller, as the Responsible Official, will decide:

1. The level of analysis necessary to assess and document the environmental effects of this proposed project. This includes determining whether this project meets criteria for

[1] A record of success in the state has already been established. In 1997, the NH Department of Transportation, in conjunction with the NH Department of Agriculture, Markets and Food, developed a four-year pilot program to study the effects of 3 biological control agents on purple loosestrife, and to develop self-sustaining populations of these insects for the long term management of this invasive weed. The program has been highly successful at most locations. Within four years of their introduction at one 9-acre wetland in southern NH, the beetles had nearly eradicated loosestrife from the site. The beetles have established a successful, self-perpetuating population there that remains viable today despite the low numbers of loosestrife plants left in the area.

[2] The two biological control insects named above have been authorized for field release in New Hampshire (and other states) by the US Department of Agriculture, Animal and Plant Health Inspection Service (APHIS).

categorical exclusion from documentation in an environmental impact statement or environmental assessment, including an assessment of any extraordinary circumstances (as defined in FSH 1909.15, Chapter 30.3). All or part of this project may be categorically excluded from documentation under FSH 1909.15, Chapter 31.2, Category 6 (restoration of wildlife habitat).

2. Whether there is sufficient information and analysis to make a decision to implement the proposed project.

3. The sites approved for treatments, and the treatments approved for each site.

4. Mitigation measures and monitoring requirements that will help assure the proposed project meets 1986 Forest Plan standards and guidelines for all resources.

How to Communicate

We would appreciate any comments, suggestions, or input you may offer to help us make the best decision regarding management of purple loosestrife on the Forest. Comments will be received until March 12, 2005. Please address any comments or questions to Kathy Starke, District Biologist at the address and phone number above, or by e-mail (comments-eastern-white-mountain-saco@fs.fed.us).

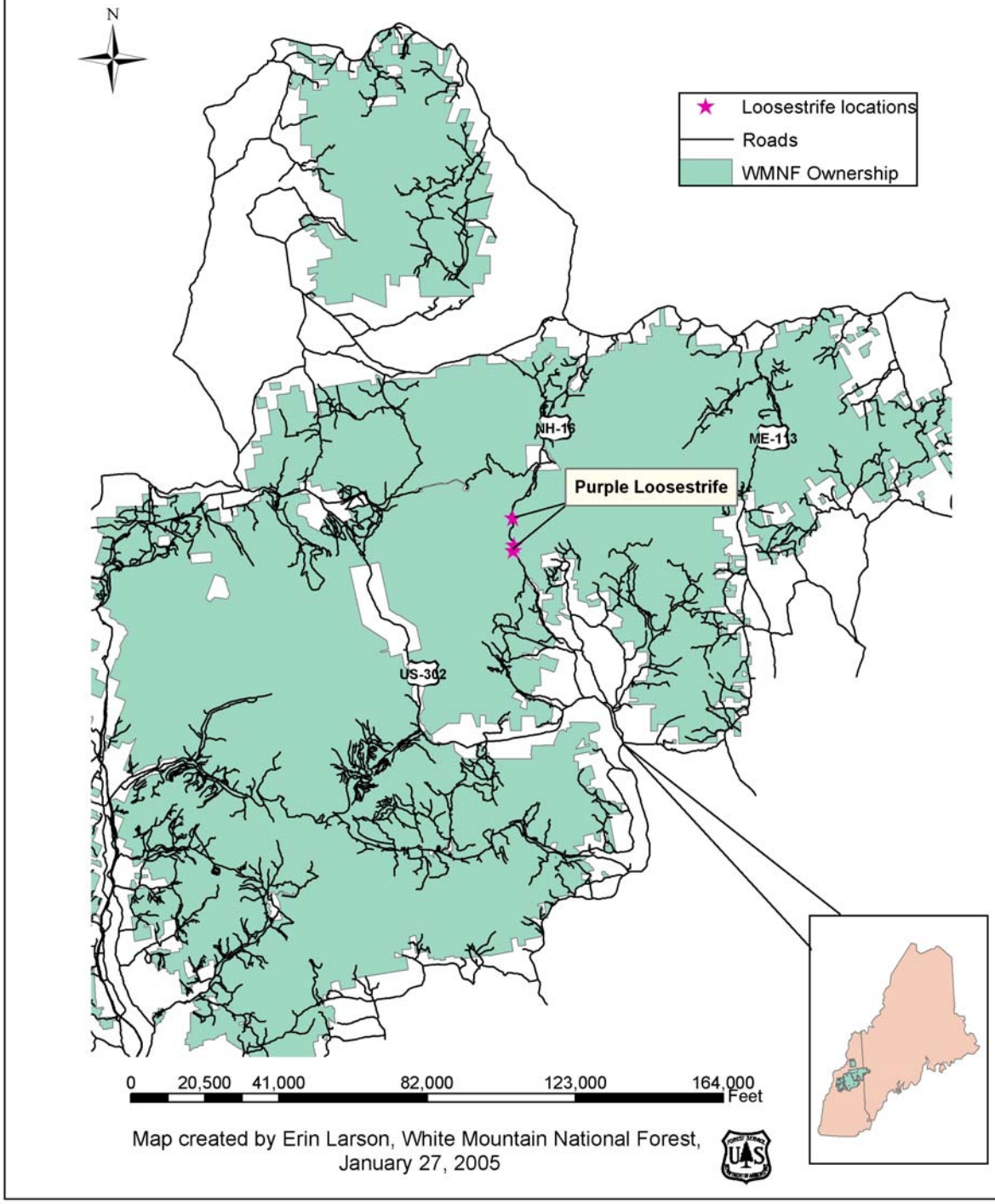
Thank you for your interest in the White Mountain National Forest. We look forward to hearing from you soon.

Sincerely,

/s/ *Terry Miller*
TERRY MILLER
District Ranger

Enclosure

Biological Control of Purple Loosestrife
Saco Ranger District



Map created by Erin Larson, White Mountain National Forest,
January 27, 2005